

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A dicing and die bonding pressure-sensitive adhesive sheet comprising a base material and a pressure-sensitive adhesive layer disposed thereon, the pressure-sensitive adhesive layer having a ratio (M_{100}/M_{70}) of a modulus of elasticity at 100°C (M_{100}) to a modulus of elasticity at 70°C (M_{70}) being 0.5 or less.

2. (Original) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 1, wherein the pressure-sensitive adhesive layer comprises a pressure-sensitive component and a thermosetting component, the pressure-sensitive component comprising an acrylic polymer having a weight-average molecular weight of 30,000 to 500,000.

3. (Original) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 2, wherein the acrylic polymer contains repeating units derived from vinyl acetate in an amount of 5 to 50% by mass.

4. (Currently Amended) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 2 ~~or 3~~, wherein the pressure-sensitive adhesive layer further contains a thermoplastic resin having a glass transition temperature of 60 to 150°C.

5. (Original) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 4, wherein the weight ratio of the acrylic polymer and the thermoplastic resin (acrylic polymer/thermoplastic resin) ranges from 9/1 to 3/7.

6. (Currently Amended) The dicing and die bonding pressure-sensitive adhesive sheet according to ~~any one of claims 1 to 5~~ claim 1, wherein the base material has a

surface tension of 40 mN/m or less at a surface which contacts with the pressure-sensitive adhesive layer.

7. (Currently Amended) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in ~~any one of claims 1 to 6~~claim 1, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.

8. (New) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 3, wherein the pressure-sensitive adhesive layer further contains a thermoplastic resin having a glass transition temperature of 60 to 150°C.

9. (New) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 2, wherein the base material has a surface tension of 40 mN/m or less at a surface which contacts with the pressure-sensitive adhesive layer.

10. (New) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 3, wherein the base material has a surface tension of 40 mN/m or less at a surface which contacts with the pressure-sensitive adhesive layer.

11. (New) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 4, wherein the base material has a surface tension of 40 mN/m or less at a surface which contacts with the pressure-sensitive adhesive layer.

12. (New) The dicing and die bonding pressure-sensitive adhesive sheet according to claim 5, wherein the base material has a surface tension of 40 mN/m or less at a surface which contacts with the pressure-sensitive adhesive layer.

13. (New) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in claim 2, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.

14. (New) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in claim 3, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.

15. (New) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in claim 4, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.

16. (New) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in claim 5, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.

17. (New) A process for producing semiconductor devices, the process comprising sticking a semiconductor wafer onto the pressure-sensitive adhesive layer of the dicing and die bonding pressure-sensitive adhesive sheet as claimed in claim 6, dicing the semiconductor wafer into IC chips, picking up the IC chips from the base material while allowing the pressure-sensitive adhesive layer to remain adhered to the IC chips, and bonding the IC chips onto die pads by means of the pressure-sensitive adhesive layer with the application of heat and pressure.